

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1-11. (canceled)

Claim 12. (currently amended) A purified nucleic acid molecule encoding a coccidian CKI protein, wherein said nucleic acid molecule comprises a nucleotide sequence ~~protein comprises an amino acid sequence~~ selected from the group consisting of:

(a) a nucleotide sequence which encodes an amino acid sequence as set forth in SEQ ID NO:2, SEQ ID NO:4 and SEQ ID NO:6;

(b) a nucleotide sequence which hybridizes under conditions of moderate to high stringency to the complement of a second nucleic acid molecule which encodes an amino acid sequence of SEQ ID NO:2; and,

(c) a nucleotide sequence which hybridizes under conditions of moderate stringency to the complement of a second nucleic acid molecule of SEQ ID NO:1;

wherein said nucleic acid molecule encodes an amino acid sequence that has at least 80% identity to the amino acid sequence of SEQ ID NO:2.

Claim 13. (currently amended) An expression vector for expressing a coccidian CKI protein in a recombinant host cell wherein said expression vector comprises a nucleic acid molecule of claim ~~12~~ 38.

Claim 14. (original) A recombinant host cell which expresses a coccidian CKI protein wherein said host cell contains the expression vector of claim 13.

Claim 15. (original) A process of expressing a coccidian CKI protein in a recombinant host cell, comprising:

- (a) transfecting the expression vector of claim 13 in a suitable host cell; and,
- (b) culturing the host cells of step (a) under conditions which allow expression of said coccidian CKI protein from said expression vector.

Claim 16. (currently amended) An isolated nucleic acid molecule encoding a coccidian CKI protein, wherein said nucleic acid molecule comprises a nucleotide sequence ~~selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and SEQ ID NO:5.~~

Claim 17. (original) An expression vector for expressing a coccidian protein in a recombinant cell where in said expression vector comprises a nucleic acid molecule of claim 16.

Claim 18. (original) A recombinant host cell which expresses a coccidian CKI protein wherein said host cell contains the expression vector of claim 17.

Claim 19. (original) A process of expressing a coccidian CKI protein in a recombinant host cell, comprising:

- (a) transfecting the expression vector of claim 17 into a suitable host cell; and
- (b) culturing the host cells of step (a) under conditions which allow expression of said coccidian CKI protein from said expression vector.

Claim 20-37. (canceled)

Claim 38. (new) A purified nucleic acid molecule of claim 12, wherein said nucleic acid molecule encodes an amino acid sequence as set forth in SEQ ID NO:2.

Claims 3-6, 12-19, 26, 27, 31, 32 and 35-37 are pending and are subject to a restriction under 35 U.S.C. §121. Claims 3-6, 26, 27, 31, 32 and 35-37 have been canceled without prejudice to future prosecution. Claim 38 has been added. Claims 12, 13 and 16 have been amended. No new matter has been added. After entry of the instant response, claims 12-19 and 38 will be pending.

Claim 12 has been amended to both remove non-elected subject matter and to further encompass within said claim purified nucleic acid molecules comprising nucleotide sequences which hybridize under conditions of moderate to high stringency to the complement of a second nucleic acid molecule which encodes an amino acid sequence of SEQ ID NO:2 and nucleotide sequences which hybridize under conditions of moderate stringency to the complement of a second nucleic acid molecule of SEQ ID NO:1; wherein said nucleic acid molecule encodes an amino acid sequence that has at least 80% identity to the amino acid sequence of SEQ ID NO:2. Support for this addition to claim 12 can be found on page 5, lines 6-17, of the specification. No new matter has been added.

Claim 13 has been amended to change its dependency upon claim 38. No new matter has been added.

Claim 16 has been amended to remove non-elected subject matter.

Claim 38 has been added, drawn to a purified nucleic acid molecule of claim 12, wherein said nucleic acid molecule encodes an amino acid sequence as set forth in SEQ ID NO:2. Support for this new claim can be found in original claim 12. No new matter has been added.

In the Office Action, restriction under 35 U.S.C. §121 is required to one of the following groups of inventions:

Group I, Claims 3-6 and 12-19 drawn to a polynucleotide encoding a coccidian casein kinase I, vector, host cell, and method of making.

Group II, Claims 26, 27, 31 and 32 drawn to a coccidian casein kinase polypeptide.

Group III, Claims 35-37 drawn to a method of identifying a modulator for a coccidian casein kinase polypeptide.

For each of the preceding groups of inventions, the Office Action also requires election of one of the following Inventions, (A) through (F), depending on which of the above groups is chosen:

If Group I is elected, further elect one of the following:

- (A) E. tenella encoding SEQ ID NO: 2
- (B) T. gondii encoding SEQ ID NO: 4 or SEQID NO: 6.

If Group II is elected, further elect one of the following:

- (C) E. tenella encoding SEQ ID NO: 2
- (D) T. gondii encoding SEQ ID NO: 4 or SEQID NO: 6.

If Group III is elected, further elect one of the following:

- (E) E. tenella
- (F) T. gondii

Applicants herein elect **Group I** (claims 12-19 and 38), without traverse, drawn to a polynucleotide encoding a coccidian casein kinase I, vector, host cell, and method of making, and further elect **Invention A** (E. tenella CKI encoding SEQ ID NO: 2; claims 12-19 and 38).

Applicants maintain that all claims are in condition for allowance and a favorable action on the merits is earnestly solicited.

Respectfully submitted,

By Laura M. Ginkel  
Laura M. Ginkel, Ph.D.  
Reg. No. 51,737  
Attorney for Applicant

MERCK & CO., INC.  
P.O. Box 2000  
Rahway, New Jersey 07065-0907  
(732) 594-1932

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